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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,424	09/26/2003	Volker Smektala	200300138-1	8428

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
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EXAMINER

NGUYEN, LAMSON D

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/672,424	Applicant(s) SMEKTALA ET AL.	
	Examiner Lamson D. Nguyen	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment dated 09/27/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-16 and 25-31 is/are allowed.
- 6) ☒ Claim(s) 1-5, 17-24, 32 and 33 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 17-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Watrobski et al. (6,278,468).

Watrobski et al teach a calibrating method comprising:

Claims 1, 17:

- printing a swath (column 4, lines 40-44 teach printhead scans back and forth to print which means a swath)
- measuring a temperature rise of the printhead during the swath (column 6, lines 44-48 teach temperature increases as printing continues, figure 9)
- calibrating an operating energy of the printhead based on the measured temperature rise while performing a non-test print job (column 5, lines 22-32, lines 32-33 teach sensing or calibrating can be done during print operation)

Claim 2:

- wherein calibrating the operating energy includes comparing the measured temperature rise of the printhead with an expected temperature rise (column 5, lines 9-32, also it's inherent that when a particular amount of energy is

driven to compensate for a rise in temperature that the detected temperature has to be compared to a desired or optimal temperature, otherwise there's no need to adjust drive energy)

Claim 3:

- wherein calibrating the operating energy includes adjusting the amount of energy provide to the printhead (column 5, lines 13-15)

Claim 4:

- wherein adjusting the amount of energy includes increasing a voltage potential applied to the printhead (column 5, lines 13-15, it is inherent that the amount of adjusted energy depends of detected temperature)

Claim 5:

- wherein adjusting the amount of energy includes decreasing a voltage potential applied to the printhead (column 5, lines 14-15, it is inherent that the amount of adjusted energy depends on detected temperature)

Claim 18:

- a printhead (figure 1, head 12)

- a temperature sensor coupled to the printhead and operable to measure a temperature of the printhead during a normal printing scan (figure 9, temperature sensor; column 6, lines 44-48)
- a calibration component coupled to the temperature sensor and operable to variably adjust an operating energy provided to the printhead based on the temperature of the printhead measured during the printing scan (column 5, lines 10-15; column 5, lines 32-33 teach sensing or calibration can be any time during print operation)

Claim 19:

- wherein the calibration component includes a calibration component operable to determine a proper operating energy of the printhead by comparing a detected temperature rise of the printhead measured during a printing scan with an expected temperature rise (column 5, lines 9-32, it is inherent that when an adjusted amount of energy is applied to a printhead due to a detected temperature rise, the detected temperature has to be compared to an optimal temperature. Otherwise, there would be no need to adjust drive energy)

Claim 20:

- wherein the calibration component is operable to calibrate an operating energy for the printhead by repeatedly comparing thermal measurements

during one or more printing scans (column 5, lines 32-33 teach sensing period can be any time during print operation which inherently means that temperature detection goes on during the print operation)

Claim 21:

- wherein the calibration component is operable to calibrate an operating energy during normal printing (column 5, lines 13-15)

Claim 22:

- wherein the calibration component is operable to variably adjust the operating energy provided to the printhead during normal printing (column 5, lines 13-15 adjusts energy depending on detected temperatures, therefore inherently teaches the amount of energy varies because detected temperatures will be different throughout printing)

Claim 23:

- Wherein the calibration component includes a set of computer executable instructions (column 5, lines 25-31)

Claim 24:

- wherein the calibration component is operable to variably adjust the operating energy by varying a pulse width of a potential applied to firing resistors on the

printhead (column 5, lines 13-15 adjusts energy depending on detected temperatures, therefore inherently teaches amount of energy varies because detected temperatures will be different throughout printing, and it is well-known to apply energy to resistive elements or resistors do drive the printhead to eject ink drops)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watrobski et al in view of Moriyama et al. (6,957,879).

Watrobski et al teach all claimed features of the invention including a calibration component operable to compare a measured thermal detected during an elevated, applied firing energy to an expected temperature rise of a printhead .

Watrobski et al however do not explicitly teaching a host device and operable to transmit one or more print jobs to the printing device.

It is well-known in the art of printing apparatuses that a printer would be connected to a host apparatus as taught by Moriyama et al (figure 3, host 500).

Art Unit: 2861

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Watrobski to incorporate the teaching of a host device taught by Moriyama for the purpose of transmitting print data to the printing apparatus.

Allowable Subject Matter

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7-16 and 25-31 are allowed.

Response to Arguments

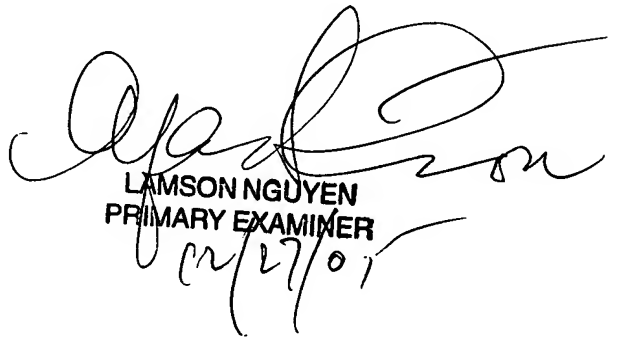
Applicant's arguments dated 09/27/05 with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamson D. Nguyen whose telephone number is 571-272-2259. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2861

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LAMSON NGUYEN
PRIMARY EXAMINER
12/27/01